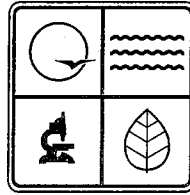


STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES  
MISSOURI AIR CONSERVATION COMMISSION



## PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **06 2 0 0 6 - 0 1 3** Project Number: **2006-05-003**  
 Owner: **Ashland, Inc.** **107-0042**  
 Owner's Address: **P.O. Box 23910, Overland Park, KS 66283**  
 Installation Name: **Limpus Quarries, Inc. - Bates City Facility**  
 Installation Address: **1317 Highway Z, Bates City, MO 64011**  
 Location Information: **Lafayette County, S25, T48N, R29W**

Application for Authority to Construct was made for:

The modification of an existing stationary rock-crushing plant. The rock-crushing plant is a Generic Plant. Rock is processed through no more than 1 grizzly feeder, 2 crushers, 3 screens, 33 Stackers/Conveyors/Bins. The rock-crushing plant has a maximum hourly design rate (MHDR) of 325 tons per hour (tph). Best Management Practices will be used to control fugitive emissions from haul roads and storage piles. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

- ☐ Standard Conditions (on reverse) are applicable to this permit.
- ☒ Standard Conditions (on reverse) and Special Conditions (listed as attachments starting on page 2) are applicable to this permit.

**JUL - 7 2006**

EFFECTIVE DATE

*James L. Kavanaugh*  
 DIRECTOR OR DESIGNEE  
 DEPARTMENT OF NATURAL RESOURCES

## STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

**You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review.** Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional Office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed Special Conditions as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

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The Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

2006-05-003  
107-0042

Ashland, Inc.

P.O. Box 23910, Overland Park, KS 66283

Limpus Quarries, Inc. - Bates City Facility

1317 Highway Z, Bates City, MO 64011

Lafayette County, S25, T48N, R29W

The modification of an existing stationary rock-crushing plant. The rock-crushing plant is a Generic Plant. Rock is processed through no more than 1 grizzly feeder, 2 crushers, 3 screens, 33 Stackers/Conveyors/Bins. The rock-crushing plant has a maximum hourly design rate (MHDR) of 325 tons per hour (tph). Best Management Practices will be used to control fugitive emissions from haul roads and storage piles. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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Permit No.	
Project No.	2006-05-003

# **GENERAL SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

*The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075); by the Missouri Rules listed in Title 10, Division 10 of the Codes of State Regulations (specifically 10 CSR 10-6.060); by 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority"; by 10 CSR 10-6.010 "Ambient Air Quality Standards" and 10 CSR 10-6.060 subsections (5)(D) and (6)(A); and by control measures requested by the applicant, in their permit application, to reduce the amount of air pollutants being emitted, in accordance with 10 CSR 10-6.060 paragraph (6)(E)3. Furthermore, one or more of the Subparts of 40 CFR Part 60, New Source Performance Standards (NSPS), applies to this installation.*

1. Generic Plant Designation and Maximum Combined Hourly Design Rate  
Limpus Quarries, Inc. - Bates City Facility's stationary rock-crushing plant (107-0042) has been designated to be a Generic Plant Operation. The combined Maximum Hourly Design Rate (MHDR) for the primary unit(s) and each of the following generic equipment types shall not exceed the maximum installation capacities listed below at any time the installation is in operation.

Equipment Type	Maximum Combined Hourly Design Rate	Maximum Number of Units
Primary Unit(s) (Primary Crusher)	325 tons per hour	1
Feeder/Grizzly	650 tons per hour	1
Crusher(s) including primary crusher	650 tons per hour	2
Conveyor(s), Stacker(s), Bin(s)	10,725 tons per hour	33
Screen(s)	975 tons per hour	3

2. Generic Plant Equipment Identification Requirement
  - A. Within fifteen (15) days of actual startup, Limpus Quarries, Inc. - Bates City Facility shall submit to the Air Pollution Control Program's (APCP) Permitting Section, and the Kansas City Regional Office, the following information for the generic plant (107-0042):
    - 1.) A Master List of all equipment that will be permitted for use with the generic plant (107-0042). This master list shall include the following information for each piece of equipment. The manufacturer's name, the model number, the serial number, the actual MHDR, the date of manufacture, any company-assigned equipment number, and any other additional information such as sizes and/or dimensions that is necessary to uniquely identify all of the equipment.
    - 2.) A list of the core equipment that will always be utilized with the generic plant (107-0042). The core equipment associated with the generic plant shall include at least one (1) primary unit. Core equipment items are rate-controlling components of the process flow (e.g., primary crusher and/or primary screen). The maximum hourly design rate of the generic plant is defined to be the sum of the MHDR(s) of the core equipment. Any arrangement of the generic plant's equipment must be such that the core equipment is not bypassed in the process flow.
    - 3.) A determination on the applicability of 40 CFR Part 60, Subpart "OOO", *Standards of Performance for Nonmetallic Mineral Processing Plants*, for each piece of equipment. Limpus Quarries, Inc. - Bates City Facility shall indicate whether or not each piece of equipment is subject to Subpart "OOO" and provide the justification for this applicability determination.
    - 4.) Limpus Quarries, Inc. - Bates City Facility shall submit notification to the Air Pollution Control Program and the Regional Office if the core equipment is changed and/or if new equipment is added to the supplemental equipment list.
  - B. To assure that each piece of equipment is properly identified as being a part of this generic stationary rock-crushing plant (107-0042), Limpus Quarries, Inc. - Bates City Facility shall provide and maintain suitable, easily read permanent markings on each component of the plant. These markings shall be the equipment's serial number or a company assigned identification number that uniquely identifies the individual component. These identification numbers must be submitted to the Air Pollution Control Program and the Regional Office no later than fifteen (15) days after start-up of the generic plant.
  - C. Limpus Quarries, Inc. - Bates City Facility shall at all times maintain a list of the specific equipment currently being utilized with the generic stationary rock-crushing plant (107-0042). The installation shall immediately make this list of currently used equipment available to any Missouri Department of

Page No.	3
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**GENERAL SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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Natural Resources' personnel upon request.

3. **Restriction on Process Configuration of Primary Emission Point(s)**  
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Limpus Quarries, Inc. - Bates City Facility has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: Primary Crusher. Bypassing the primary emission point(s) for processing is prohibited.
4. **Restriction on the Use of Diesel Engine(s)**  
No diesel engine(s) shall be used with the plant. If the company decides to add diesel engines, a new permit review will be required.
5. **Performance Testing for New Source Performance Standards (NSPS)**
  - A. Limpus Quarries, Inc. - Bates City Facility shall submit the enclosed testing plan to the Enforcement section of the Air Pollution Control Program for all equipment applicable to NSPS Subpart "OOO". Limpus Quarries, Inc. - Bates City Facility shall contact the Enforcement section to obtain all requirements for testing, and the plan must be submitted to the Enforcement section at least 30 days prior to the proposed test date.
  - B. Testing must be performed no later than 60 days after achieving the maximum production rate of the process, and in any case no later than 180 days after initial startup. The performance test results shall be submitted to the Enforcement section no later than 30 days after completion of any required testing.
6. **Record Keeping Requirement**  
The operator(s) shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
7. **Reporting Requirement**  
The operator(s) shall report to the Air Pollution Control Program (APCP) Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedances of the limitations imposed by this permit.
8. **Superseding Condition**  
The conditions of this permit supersede all special conditions found in the previously issued construction permit(s) (0599-016, 042002-020, 102003-005) from the Air Pollution Control Program.

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Permit No.	
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# **SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

Site ID No.: 107-0042

Site Name: Limpus Quarries, Inc. - Bates City Facility

Site Address: 1317 Highway Z, Bates City, MO 64011

Site County: Lafayette County, S25, T48N, R29W

1. **Best Management Practices**  
Limpus Quarries, Inc. - Bates City Facility shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for Limpus Quarries, Inc. - Bates City Facility's rock-crushing plant (107-0042) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed during concurrent operations, when other plants are located at this site. Use Attachment A, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operations)*, or other equivalent form(s), for this purpose. For solitary operations, no records need to be kept since the plant can operate 24 hours without violating NAAQS limitation.
  - D. The rock-crushing plant shall be limited to an ambient impact of 95 µg/m<sup>3</sup> of PM<sub>10</sub> during concurrent operations. The remaining 55 µg/m<sup>3</sup> of PM<sub>10</sub> allowed under NAAQS shall be divided between concurrently operating plants (35 µg/m<sup>3</sup>) and background concentration from the use of Best Management Practices (20 µg/m<sup>3</sup>).
3. **Annual Emission Limit of Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) shall ensure that Limpus Quarries, Inc. - Bates City Facility's rock-crushing plant emits less than 50 tons of PM<sub>10</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment B, *Monthly PM<sub>10</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. **Moisture Content Testing Requirement for Inherent Moisture Content**
  - A. The inherent moisture content of the rock will reduce particulate emissions. Limpus Quarries, Inc. - Bates City Facility claimed the inherent moisture content of the processed rock to be greater than or equal to 1.5 wt%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other method(s) approved by the Director. The first test shall be no later than 45 days after startup. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Limpus Quarries, Inc. - Bates City Facility shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.
  - C. The operator shall obtain test samples before processing (before entering the Primary Crusher,) and

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Permit No.	
Project No.	2006-05-003

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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after processing (prior to load-in to bins and/or storage piles). During the sample processing run only, any spray devices shall be turned off during the processing from which test samples are obtained. The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be submitted to the Enforcement section of the Air Pollution Control Program, and a copy shall be sent to the Regional Office.

5. **Restriction on Minimum Distance to Nearest Property Boundary**  
The primary emission point of the rock-crushing plant, which is the primary crusher, shall be located at least 550 feet from the nearest property boundary whenever it is operating at this site.

## TECHNICAL REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT

### PROJECT DESCRIPTION

The permit for the stationary rock-crushing plant is being modified to account for the use of Best Management Practices for the control of PM<sub>10</sub> emissions from haul roads and storage piles and to allow other asphalt, concrete, or rock-crushing plants to operate at the site. This permit allows for Limpus Quarries, Inc. to operate concurrently with other asphalt, concrete, or rock-crushing plant, but only if these plants have been limited in their permits to a combined ambient impact of 35.0 µg/m<sup>3</sup> at or beyond the nearest property boundary. For compliance tracking purposes, Limpus Quarries, Inc. shall record the identities of the concurrently operating plants. If any emissions-related violations occur on days that the companies are operating concurrently, all companies will be held responsible. It is, there, recommended that all companies communicate daily, and a daily communications log may be helpful in demonstrating compliance.

Rock, composed of non-metallic minerals, is drilled/blasted, loaded into haul trucks, and transported to processing. Rock is processed through feeder(s), crusher(s), screen(s), conveyor(s), and bin(s). Processing equipment is powered with electrical power and not diesel engines. If Limpus Quarries, Inc. wants to switch to diesel engines, a new permit review will be required. The emission points are listed in the attached spreadsheet summary. This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2]. The installation is located in Lafayette County, an attainment area for all criteria air pollutants.

**Table 1. Other Permits Issued for Installation 107-0042**

Permit Number	Completed	Description
0599-016	5/20/1999	Section 6 permit for a new rock-crushing plant.
0599-016A	2/03/2000	Amend inaccuracies in permit #0599-016.
0599-016A	6/22/2000	Amend record keeping to allow concurrent operations.
042002-020	4/23/2002	Section 6 permit issued to add equipment.
102003-005	10/08/2003	Section 6 permit issued to change maximum hourly design rate and distance to the nearest property boundary.

### EMISSIONS EVALUATION

Criteria air pollutants will be emitted from this operation. The main air pollutant of concern is PM<sub>10</sub>. There should be no SO<sub>x</sub>, NO<sub>x</sub>, VOC, CO, or HAPs emissions because diesel engines will not be used with this plant. The PM<sub>10</sub> potential emissions were calculated from the maximum hourly design rate (MHDR) of the equipment, appropriate emission factors, control device efficiencies, and the limiting operating hours at MHDR. The sources of the emission factors and control efficiencies are listed in the section "Permit Documents". Based on the conditioned potential emissions, the operation is considered a minor source under 10 CSR 10-6.060 section (6).

The rock-crushing plant has an annual emission limit of less than 50 tons of PM<sub>10</sub> in any 12-month period. A composite PM<sub>10</sub> emission factor was developed for the rock-crushing plant. The composite emission factor is incorporated into the monthly record keeping table, Attachment B. If the conditioned potential emissions of PM<sub>10</sub> were 50 tons per year or greater, then the owner would be required to submit dispersion modeling results.

**Table 2: Emissions Summary (tons per year)**

Air Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions (2005 EIQ)	Potential Emissions of the Application	*New Installation Conditioned Potential	Emission Factor (lb/ton)
PM <sub>10</sub>	15.0	73.60	6.8	73.60	<50	0.0520
SO <sub>x</sub>	40.0	N/A	N/A	N/A	N/A	N/A
NO <sub>x</sub>	40.0	N/A	N/A	N/A	N/A	N/A
VOC	40.0	N/A	N/A	N/A	N/A	N/A
CO	100.0	N/A	N/A	N/A	N/A	N/A
HAPs	10.0/25.0	N/A	N/A	N/A	N/A	N/A

Note: N/A = Not Applicable

\* Conditioned potential based on limit in permit conditions.



## **AMBIENT AIR QUALITY IMPACT ANALYSIS**

Screening tools were used to evaluate the ambient air impact of the hourly emissions from this operation. The ambient impact was evaluated at a distance of 550 feet to the nearest property boundary. The ambient impact at this site shall not exceed the National Ambient Air Quality Standard (NAAQS) of 150  $\mu\text{g}/\text{m}^3$  of  $\text{PM}_{10}$  at or beyond the nearest property boundary in any single 24-hour period. For sources agreeing to use Best Management Practices (BMPs), as defined in Attachment AA, haul roads and stockpiles are not modeled with screening tools. Instead, they are addressed as a background level of 20  $\mu\text{g}/\text{m}^3$  of  $\text{PM}_{10}$ . To ensure conformity with NAAQS, the remaining process emissions are limited to an impact of less than 130  $\mu\text{g}/\text{m}^3$  of  $\text{PM}_{10}$  at or beyond the nearest property boundary.

This permit allows for two (s) operating scenarios: Scenario 1 for solitary operation and Scenario 2 for concurrent operation with other plants located at this site. The ambient impact from solitary operation is expected to be 112.24  $\mu\text{g}/\text{m}^3$  of  $\text{PM}_{10}$  at or beyond the nearest property boundary in any single 24-hour period. No record keeping is needed for solitary operation since its  $\text{PM}_{10}$  ambient impact can never exceed the limit of 130  $\mu\text{g}/\text{m}^3$  no matter how long it operates during the day. For concurrent operations, Limpus Quarries Inc. will decrease its daily production in order to allow other installations to operate concurrently at this site. The ambient impact under concurrent operations for Limpus Quarries, Inc. shall be limited to less than 95.00  $\mu\text{g}/\text{m}^3$  of  $\text{PM}_{10}$  at or beyond the nearest property boundary in any single 24-hour period. The screening tools were used to develop an ambient impact factor for the rock-crushing plant during concurrent operations. This ambient impact factor is incorporated into the daily record keeping table, Attachment A.

**Table 3: Ambient Air Quality Impact Analysis of  $\text{PM}_{10}$ , 24-Hour Averaging Time**

Operation	Ambient Impact Factor ( $\mu\text{g}/\text{m}^3\text{ton}$ )	Modeled Impact ( $\mu\text{g}/\text{m}^3$ )	*Background ( $\mu\text{g}/\text{m}^3$ )	NAAQS ( $\mu\text{g}/\text{m}^3$ )	Daily Production Limit (tons)
1. Solitary	0.0144	112.24	20.00	150.00	7800
2. Concurrent	0.0137	95.00	55.00	150.00	6922

\* Background  $\text{PM}_{10}$  level of 20.00  $\mu\text{g}/\text{m}^3$  from haul roads and stockpiles and 35.00  $\mu\text{g}/\text{m}^3$  from the operation of other asphalt, concrete, or rock-crushing plants.

## **APPLICABLE REQUIREMENTS**

The owner is subject to compliance with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements.

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
- *Operating Permits*, 10 CSR 10-6.065
- An Operating Permit application is required for this installation within 30 days of equipment startup.
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090
- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- 40 CFR Part 60 Subpart "OOO", *Standards of Performance for Nonmetallic Mineral Processing Plants*, of the New Source Performance Standards (NSPS)
- The National Emission Standards for Hazardous Air Pollutants (NESHAPs) and the currently promulgated Maximum Achievable Control Technology (MACT) regulations do not apply to the proposed equipment.

## **STAFF RECOMMENDATION**

On the basis of this review conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

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Chia-Wei Young  
Environmental Engineer

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Date

## **PERMIT DOCUMENTS**

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, designating Ashland, Inc. as the owner and operator of the installation.
- Environmental Protection Agency (EPA) AP-42, *Compilation of Air Pollutant Emission Factors; Volume I, Stationary Point and Area Sources, Fifth Edition*.
- Noyes Data Corp. book, Orlemann, et al. 1983, *Fugitive Dust Control*.
- EPA Factor Information Retrieval (FIRE) Version 6.21.
- Spreadsheet calculations of potential-to-emit and ambient impact.
- Kansas City Regional Office Site Survey.
- Best Management Practices.

**Attachment A: Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operations)  
Limpus Quarries, Inc. - Bates City Facility, 107-0042 – Generic Rock-Crushing Plant**

Project Number: 2006-05-003  
County, CSTR: Lafayette County (S25, T48N, R29W)  
Primary Unit Size: 325 tph  
Distance to Nearest Property Boundary: 550 feet

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_ (Month, Day, Year) (Copy  
this sheet as needed.)

[illegible]

Note 1: The Daily PM<sub>10</sub> Impact (µg/m<sup>3</sup>) for each plant is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor.

Note 2: Background PM<sub>10</sub> Level (µg/m<sup>3</sup>) is from Haul Roads and other asphalt, concrete, or rock-crushing plants.

Note 3: The TOTAL PM<sub>10</sub> Level (µg/m<sup>3</sup>) is calculated by summing the Daily PM<sub>10</sub> Ambient Impact(s) and the Background PM<sub>10</sub> Level. A TOTAL PM<sub>10</sub> Level of less than 150 µg/m<sup>3</sup> in any 24-hour period indicates compliance.

**Attachment B: Monthly PM<sub>10</sub> Emissions Tracking Record**  
**Limpus Quarries, Inc. - Bates City Facility, 107-0042 – Generic Rock-Crushing Plant**

Project Number: 2006-05-003  
County, CSTR: Lafayette County (S25, T48N, R29W)  
Primary Unit Size: 325 tph  
Distance to Nearest Property Boundary: 550 feet

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_ (Month, Day, Year)  
(Copy this sheet as needed.)

[illegible]

Note 1: The Monthly Emissions (lbs) are calculated by multiplying the Monthly Production (tons) by the Composite Emission Factor (lbs/ton).

Note 2: The Monthly Emissions (tons) are calculated by dividing the Monthly Emissions (lbs) by 2,000.

Note 3: The 12-Month Emissions (tons/year) are a rolling total calculated by adding the Month's Emissions (tons) to the Monthly Emissions (tons) of the previous eleven (11) months. A total of less than **50** tons in any consecutive 12-month period indicates compliance.

## Attachment AA: Best Management Practices (BMPs)- Construction Industry Fugitive Emissions

Construction Industry Sites covered by the Interim Relief Policy shall maintain Best Management Control Practices (BMPs) for fugitive emission areas at their installations when in operation. Options for BMPs are at least one of the following:

### For Haul Roads:

1. Pavement of Road Surfaces –
  - A. The operator(s) may pave all or any portion of the haul roads with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve “Control of Fugitive Emissions<sup>1</sup>” while the plant is operating.
  - B. Maintenance and/or repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
  - C. The operator(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the haul road(s) as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
2. Usage of Chemical Dust Suppressants –
  - A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the unpaved portions of the haul roads. The suppressant will be applied in accordance with the manufacturer’s suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
  - B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
  - C. The operator(s) shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.
3. Usage of Documented Watering –
  - A. The operator(s) shall control the fugitive emissions from all the unpaved portions of the haul roads at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating. For example, the operator(s) shall calculate the total square feet of unpaved vehicle activity area requiring control on any particular day, divide that product by 1,000, and multiply the quotient by 100 gallons for that day.
  - B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operation (e.g., meteorological situations, precipitation events, freezing, etc.)
  - C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
  - D. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The operator(s) shall record a brief description of such events in the same log as the documented watering.
  - E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

<sup>1</sup> For purposes of this document, Control of Fugitive Emissions means to control particulate matter that is not collected by a capture system and visible emissions to the extent necessary to prevent violations of the air pollution law or regulation. (Note: control of visible emission is not the only factor to consider in protection of ambient air quality.)

**For Vehicle Activity Areas around Open Storage Piles:**

1. Pavement of Stockpile Vehicle Activity Surfaces –
  - A. The operator(s) may pave all or any portion of the vehicle activity areas around the storage piles with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve control of fugitive emissions while the plant is operating.
  - B. Maintenance and/or repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
  - C. The operator(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
2. Usage of Chemical Dust Suppressants –
  - A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the vehicle activity areas around the open storage piles. The suppressant will be applied in accordance with the manufacturer's suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
  - B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
  - C. The operator(s) shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.
3. Usage of Documented Watering –
  - A. The operator(s) shall control the fugitive emissions from all the vehicle activity areas around the storage piles at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating. (Refer to example for documented watering of haul roads.)
  - B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operations (e.g., meteorological situations, precipitation events, freezing, etc.)
  - C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
  - D. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The operator(s) shall record a brief description of such events in the same log as the documented watering.
  - E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

Mr. Paul Campbell  
Environmental Director  
Ashland, Inc.  
P.O. Box 23910  
Overland Park, KS 66283

RE: New Source Review Permit - Project Number: 2006-05-003

Dear Mr. Campbell:

Enclosed with this letter is your New Source Review permit. Please review your permit carefully and note the special conditions, if any, and the requirements in your permit.

Operation in accordance with the conditions and requirements in your permit, the New Source Review application submitted for project 2006-05-003, and your amended operating permit, if required, is necessary for continued compliance. Please review your amended operating permit, as it will contain all applicable requirements for your rock-crushing plant, including any special conditions from your New Source Review permit.

The section of the permit entitled "Technical Review of Application for Authority to Construct" should not be separated from the main portion of your permit. The entire permit must be retained in your files. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact me at (573) 751-4817, or you may write to me at the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall Hale, P.E.  
New Source Review Unit Chief

KH:cwyl

Enclosures

c: Kansas City Regional Office  
PAMS File 2006-05-003  
Permit Number: